**AV16956DN-28 16MP CONTERAIP MICRODOME DUO LX, WDR, 2X 3840x2160, 15FPS, REMOTE FOCUS, 2X 2.8MM LENS**

This A&E specification is written according to Construction Specifications Institute (CSI) 3-Part Format, based on MasterFormat™ (2009 Edition) and The Project Resource Manual – CSI Manual of Practice. [www.csinet.org/masterformat](http://www.csinet.org/masterformat).

Manufacturer is responsible for the accuracy of the technical data included in this specification.

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**Division 28 – Electric Safety and Security**

**Section 28.23.29 – Video Surveillance – Remote Devices and Sensors**

**Part 1 General**

## 1.1 General Requirements

The camera shall be of manufacturer’s official product line, designed for continuous commercial or industrial use.

The camera shall be based on standard parts and components and utilize proven technology using open and published protocols.

All camera installation, configuration, setup, programming and all related work shall be performed by electronic technicians thoroughly trained in the installation and service of the equipment provided and in complete compliance with all local codes and regulations.

All equipment provided shall be backed by a three-year manufacturer warranty.

##  Certifications and Standards

1. European Community Directives:

2004/108/EC (EMC Directive);

2006/95/EC (Low Voltage Directive);

2011/65/EU (RoHS Directive)

 1907/2006/EC (REACH Directive)

 2002/96/EC (WEEE Directive)

1. European EMC Standards to which conformity is declared:

 EN 55032:2015 + A11: 2020

 EN 55035:2015 + A11: 2020

 EN 61000-3-2:2014

 EN 61000-3-3:2013+ A1: 2019

 

1. UL Listing

CB Test Report (IEC 60950-1 (ed. 2), E489591

 

1. FCC Standard Compliance:

 Title 47, Part 15 (47 CFR 15) Subpart B Class A

1. Mechanical Standards:

ANSI/IEC 60529-2004 - IP66 dust/water Ingress protection rating

EN62262:2002 – IK-10 impact rating

1. Video Compression Technology

H.264 MPEG-4, Part 10 ISO/IEC 14496-10 AVC/H.265

1. Networking Standard:

 IEEE 802.3at-2009 PoE Standard

1. NDAA

Compliant

1. TAA

 Compliant

## Part 2 Products

**2.1 Manufacturer**

**Arecont Vision Costar, LLC**

**642 Pollasky Avenue, Suite 230**

**Clovis, CA 93612**

**Phone: 818-937-0700**

[**www.arecontvision.com**](http://www.arecontvision.com)

**2.2 General**

The ConteraIP MicroDome Duo LX features twin multi-megapixel cameras in a compact housing, and is ideal for a variety of professional indoor/outdoor surveillance requirements. Applications include coverage of a hallway or walkway, monitoring POS terminals or ATMs, or for viewing of a single wide area or two

distinct regions.

ConteraIP MicroDome Duo LX is available with a choice of 4, 10, or 16-megapixel (MP) resolutions. These cameras provide an all-in-one solution for capturing wide area video surveillance while maximizing the field-of-view and reducing the total number of cameras required saving installers time and end users money.

The ConteraIP MicroDome Duo LX is ideal for applications with challenging lighting conditions regardless the time of day, supported by dual day/night mechanical IR cut filters. For clear color images in low-light, NightView offers strong low-light sensitivity for capturing details in extremely poor-lit scenes. Power can be supplied via a single PoE (IEEE 802.3af) compliant network cable or via a 12–48V DC/24V AC power supply.

The installer-friendly ConteraIP MicroDome Duo LX enclosure shortens the installation process. ConteraIP MicroDome Duo LX is designed for demanding environments. Certified to rigorous dust and water tests, the camera carries an IP66 rating. The rugged dome housing is IK-10 rated to withstand the equivalent of 55 kg (120 lbs) of force for vandal-prone applications.

AV Costar™ was the first to bring H.264 to the mainstream market and recently developed SNAPstream™ (Smart Noise Adaptation and Processing) technology for reducing bandwidth without impacting image quality. Today we are proud to offer our next generation H.265 with SNAPstream+ smart codec capable of delivering high quality video while saving over 50% of the data rate to reduce or prevent strain on the network.

The ConteraIP MicroDome Duo LX is ONVIF (Open Network Video Interface Forum) Profile S, G, and T conformant, providing interoperability between network video products regardless of manufacturer.

**2.3 Hardware**

* The camera shall have one configuration: AV16856DN-28 (2x 2.8mm M12 lenses).
* The camera shall utilize two high sensitivity 16 Megapixel CMOS sensor with 1/2.8” optical format, 1.45um x 1.45um pixel size, progressive scan and Active Pixel Count: 3840(H) x 2160(V) pixel array.
* The camera shall integrate two 2.8mm M12 megapixel IR corrected lenses, 1/2.7”, F1.6, Horizontal Field of View of 106.7° (-28 model).
* The camera shall have two individually adjustable 3-axis camera gimbals with 360˚ pan and 90˚ tilt and 360˚ z-axis for easy and accurate positioning.
* The camera shall have two integrated remote focus modules.
* The camera shall have die-cast aluminum chassis with IK-10 vandal resistant dome. Entire enclosure to be rated minimum IP66 for water and dust protection.
* The camera shall have SDHC card slot for onboard storage up to 1TB, class 1- and UHS-1.
* Lens options shall include the following IR corrected, F2.0, M12 lenses: 2.4mm, 2.8mm, 4.0mm, 6.0mm, 8.0mm, 12.0mm, 16.0mm.
* The camera’s power source shall be Power over Ethernet (PoE) complying with the IEEE 802.3af standard to support camera.
* The camera shall have an auxiliary power input, AC 24V and DC 12-48V.
* The camera shall be utilized for indoor and outdoor applications.
* The camera shall be NDAA and TAA compliant.

**2.4 Imaging**

* The camera shall have standard compression support with simultaneous streaming of H.265, H.264 and MJPEG formats.
* The camera shall feature automatic exposure, automatic multi-matrix white balance, shutter speed control to minimize motion blur, programmable brightness, saturation, sharpness, contrast and hue.
* The camera’s shutter speed shall be 0.1ms - 500ms.
* The camera shall feature 5-255 Hz flicker control, windowing, simultaneous delivery of full-field view and zoomed images at video frame rate, instantaneous electronic zoom, pan and tilt, and electronic image rotation by 180 degrees.
* The camera shall have multi-streaming support of up to two H.265/ H.264 streams and one M-JPEG stream.
* The camera shall have wide dynamic range up to 100dB and a maximum SNR of 46dB.
* The camera shall have privacy masking, the ability to select multiple regions of an arbitrary shape to block the video.
* The camera shall have Real Time Streaming Protocol (RTSP) support allowing for compatibility with media players such as Apple QuickTime, VLC Player and others.
* The camera shall have extended motion detection grid, a higher granularity grid of 1024 distinct motion detection zones. User can select between 64 zone based motion detection and extended motion detection to provide backward compatibility with the existing Video Management System (VMS) integration.
* The camera shall provide 21 levels of compression quality for optimal viewing and archiving.
* The cameras H.265/ H.264 implementation shall maintain full real time video frame rates.
* The camera shall output at a maximum resolution of 3840(H) x 2160(V) pixels per channel up to frame rate of 15 frames per second (FPS) of each sensor.
* It shall be possible to program the camera to output a variety of lower resolution image, i.e. 2592(H) x 1944(V) pixels per channel at 15 FPS of each sensor.
* The camera shall be able to save bandwidth & storage by running at 1/4 full resolution, and Bandwidth Limit Control.
* The camera shall be able to have below scaled resolutions per channel: 3840x2160, 2592x1944, 2560x1440, 2304x1296, 2048x1536, 1920x1080, 1600x1200, 1296x972, 1280x960, 1280x720, 800x600, and 640x480.
* The camera shall feature MoonLight™ mode - extended exposure and noise cancellation
* This camera shall have SNAPstream+™ (Smart Noise Adaptation and Processing) capability to reduce bandwidth without impacting image quality.
* The camera shall have On-Screen Display (OSD).

**2.5 Video**

Video frame rate (each sensor up to):

15fps @ 2x 3480x2160

15fps @ 2x 3480x2160 + 10fps @ 2x 2592x1440

15fps @ 2x 2592x1944 + 10fps @ 2x 2592x1944 + 15fps @ 2x 640x480

15fps @ 2x 2048x1536 + 10fps @ 2x 2048x1536 + 15fps @ 2x 640x480

**Scaled Resolution:**

3840x2160, 2592x1944, 2560x1440, 2304x1296, 2048x1536, 1920x1080, 1600x1200, 1296x972, 1280x960, 1280x720, 800x600, and 640x480.

**2.6 Protocols**

* The camera shall have Real Time Streaming Protocol (RTSP) support allowing for compatibility with media players such as Apple QuickTime, VLC Player and others.
* The camera shall support both unicast and multicast communication protocol.
* The camera shall support SNMP, IPv6, IPv4, HTTP, HTTPS, SSL, TCP/IP, UPnP, UDP, RTCP, RTSP, RTP, SMTP, NTP, DHCP, FTP, 802.1x, Zero Configure.
* 100/1000 Base-T Ethernet Network Interface

**2.7 Electrical**

Alarm Input (Wet Contact) and Alarm Output (Wet Contact)

Power over Ethernet (PoE): PoE 802.3af

Auxiliary Power 12-48V DC, 24VAC

Power consumption: PoE – 10.5 Watts maximum (with all motors on)

**2.8 Audio Electrical**

Streaming Two-way

Compression G.711 PCM 8kHz

Input/Output Line in / Line out

**2.9 Networking**

The camera shall be equipped with a 100 Mbps LAN connector.

**2.10 Environmental**

Operating temperature: -40°C (-40°F) to +50°C (122°F)

Storage temperature: -40°C (-40°F) to +60˚C (140 °F)

Humidity 0% to 90% (non-condensing)

**2.11 Minimum Illumination**

Color (Day Mode): 0.18 Lux

B/W (Night Mode): 0.018 Lux

[www.megapixelvideo.com](http://www.megapixelvideo.com) info@arecontvision.com © 2005 Arecont Vision

**2.12 Packaging**

Unit Dimensions (H x W x L) 2.83” (71.9mm) x 4.06” (103mm) x 6.42” (163mm) Weight: 2.2lbs (1.0kg)

Packaged Dimensions (H x W x L) 3.74” (95mm) x 4.72” (120mm) x 8” (180mm) Weight: 2.6lbs (1.2kg)

**2.13 Compatible Accessories**

AV-1AK ConteraIP Optional Audio Kit

AV-CRMA-W Corner Mount Adapter (AV Costar White)

AV-JBA-W Junction Box Adapter (AV Costar White)

AV-PMA-W Pole Mount Adapter (AV Costar White)

MDD-CMT-W Pendant Mount (AV Costar White)

MDD-CMT-W Wall Mount Bracket (AV Costar White)

MDD-FMA Flush Mount Adapter (White)

**2.14 Compatible Lenses**

MPM2.4 2.1mm M12-mount, Fixed iris, IR corrected

MPM2.8C2.8mm M12-mount, Fixed iris, IR corrected

MPM4.0A 4mm M12-mount; Fixed iris, IR corrected

MPM6.0 6mm M12-mount; Fixed iris, IR corrected

MPM8.0 8mm M12-mount; Fixed iris, IR corrected

MPM12.0A 12mm M12-mount, Fixed iris, IR corrected

MPM16.0 16mm M12-mount; Fixed iris, IR corrected

**2.15 Related Documents**

ConteraIP® MicroDome Duo LX Datasheet

ConteraIP® MicroDome Duo LX Installation Manual